I think my initial “Wow” moment is after reading the chapter, while mostly being a refresher, was going over the statistical concepts again for the first time in a long while, made me realize how much I missed doing statistical analysis of data versus more infrastructure reporting work I have been doing in my current role.

One of the concepts I had to reread to better understand was on the types of variation. The book defined the two types as such:

**Systematic variation** – variation due to the experimenter doing something to all the participants in one condition but not the other condition.

**Unsystematic variation** – variation due to random factors that exist between the experimental conditions (ex – time of day, natural ability, ect)

Thinking about these concepts in my everyday work, measuring performance against employees, I’d unlikely be able to reward certain employees for doing the same work as others, so any study I’d do would likely have to study the differences because of unsystematic variation. We have workers across the globe and different shifts, so could study how performance differs in the day shift versus the night shift.

I think my other “wow” moment this week was during the Data Camp introduction to R, while there are definitely differences between Python and R, I realized how learning how to code in Python helped prepare me for this class in terms of declaring variables and combing variables to do calculations. While I am at the beginner stage of R, I can see the benefits of the way R creates vectors, matrices, and data frames to get data in shape to be analyzed statistically. Taken together, I am excited on what I will learn this quarter, both from the statistics side to use in my everyday work along with learning how to program in R.

Sources:

Field, A., Miles, J., & Field Z. (2014). Discovering Statistics Using R. London, England: Sage.

Introduction to R Online Course. (n.d). Retrieved from https://www.datacamp.com/courses/free-introduction-to-r